



# What we're doing at EPA Walking the talk

U.S. EPA | STORMWATER OUTREACH AT EPA NEW ENGLAND



**STORMWATER** is a leading cause of poor water quality. Rain or melted snow runs down driveways, sidewalks and streets carrying oil, dirt and other pollutants into nearby waterways. Polluted runoff, which can cause erosion and flooding, runs into waterways and degrades plants, fish, shellfish and other wildlife. In water used for recreation, the runoff can lead to illness, and people who eat contaminated fish can also become sick. Untreated stormwater can also contaminate drinking water sources.

## INTRO:

The buildings of the New England office of the Environmental Protection Agency serve as both role models and pilot projects. In 2009, EPA New England moved to a newly renovated building in Boston's Post Office Square that exemplifies green urban building. The New England Regional Laboratory in Chelmsford, completed in 2001, has won awards for its use of green practices and serves as a model for green laboratories. Across the country, EPA works to reduce its own environmental footprint, while scientists research new methods for addressing stormwater pollution.

## TO MANAGE STORMWATER AT EPA WE ARE:

### Building to reduce stormwater pollution

- **EPA New England Regional Laboratory in Chelmsford, MA** — EPA's regional laboratory, which received the Leadership in Energy and Environmental Design (LEED) gold rating in 2003, was landscaped to conserve water and reduce stormwater runoff. A natural system with native grasses, wild flowers and shrubs, the landscaping is adapted to the climate with little need for more water and no need for synthetic fertilizer or pesticides. Stormwater runoff from the lab roof is diverted to an on-site wetland area designed for this purpose.

- **EPA New England's Boston office** — EPA designed a new headquarters at 5 Post Office Square in Boston that is also expected to receive a Gold LEED rating. Many of the qualities that make it eligible also reduce its impact on stormwater. The green roof at the McCormack Building includes native plants that can tolerate drought, but when needed will be irrigated with stormwater collected from the roof and stored in 10 cisterns totaling 5,500 gallons. This water will be pumped to the roof by a pump powered by a photovoltaic cell. In addition, the new office is in a high density area that is already paved.

**Regulating ourselves** — Under a new federal law, federal agencies must maintain or restore predevelopment

hydrology conditions on federal developments bigger than 5,000 square feet. With 17,000 employees and more than 7,000 contractors nationally, EPA is using a range of strategies to make its facilities sustainable.

**Monitoring stormwater and performing research** — EPA made managing stormwater a top science priority at an EPA Science Summit in Washington in 2009.

- **Using science to find solutions** — EPA New England's laboratory has been developing methods to monitor and analyze water quality in ways that will help address stormwater and elevated bacteria pollution. The lab is working on a method to use pharmaceuticals as indicators of human sewage, providing monitoring equipment to volunteer organizations, and developing monitoring kits to measure ammonia and "surfactants" (chemicals similar to detergents) to identify illicit connections.

- **Researching new approaches** — EPA New England was awarded a research grant for street sweeping. The street sweeping study in Cambridge, Mass., will assess the role street sweeping programs could have in reducing loads of pollutants, such as phosphorus. Ultimately, a street sweeping model will be developed to determine the best role for street sweeping to reduce phosphorus loads to the Charles River.

## KEY CONTACTS:

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